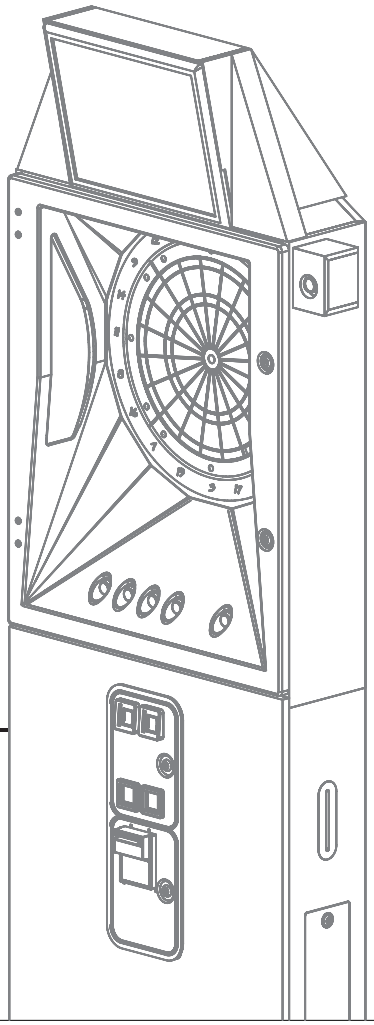
Spectrum Avanti Elite

BASIC SETUP AND INSTALLATION MANUAL



MEDALIST

AIM FOR EXCELLENCE

- Please read these instructions carefully before setup and installation of the machine.
- Keep this manual in a safe place for future reference.

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Safety Precautions

Spectrum Avanti *Elite* has been engineered and manufactured to ensure personal safety. However, improper use can result in potential electrical shock or fire hazard. You must observe the following basic rules for installation, use and servicing. Failure to do so may defeat the safe guards incorporated into the Spectrum Avanti *Elite* and may result in injury.

Warning

1. It is critical that the step/dart skirt is installed and the board is leveled prior to opening the upper cabinet door to prevent the game from falling over.
2. Be extremely careful when moving the dart board into position; leg levelers may catch on the floor causing the dart board to tip over.
3. Always unplug the power to the dart board before moving.
4. To reduce the risk of fire or electrical shock, DO NOT expose the dart board to any moisture.
5. To reduce the risk of electrical shock or possible death, DO NOT touch these areas where high voltage is present; power supply, voltage terminal strip and lamps.

Caution

1. Before power is connected, confirm the game is level. If the game is not level/stable, adjust the leg levelers.
2. The Spectrum Avanti *Elite* is equipped with a grounded AC line plug. This safety feature allows the plug to fit into any local grounded power outlet. If ground is not present in AC system the Aux ground should be properly connected to the nearest ground point. If you have any problems, contact a licensed electrician.
3. Operate the dart board from a power source as indicated in the specification of this manual. If you are not sure what type of power you have, consult your local power company.
4. Overloaded AC plugs, power strips, extension cords, frayed power cords and broken plugs may cause system overload and/or fire.
5. DO NOT allow anything to rest upon or roll over the power cord.
6. DO NOT place the dart board where the power cord is subject to damage.

1-Basic Specifications

1. Main Unit	Top Mount	Mid Mount
Height	94½" with LCD monitor installed	86½" with crown installed
	79¾" without LCD monitor installed	75½" without crown installed
Width	29"	29"
Depth	13¾"	13¾"
Weight	95 kilos, 209 pounds	94.5 kilos, 208 pounds
Max environment temperature	105°F	

2. Step Extension	
Height	4½"
Depth	8"
Width	29"

3. Monitor		
Screen	17" LCD	15" LCD

4. *Motherboard	
Make/model	MSI K8MM-V
CPU	AMD, Socket 754, Sempron 2600/2800
Memory	256 MB/DDR
Embedded peripherals	Audio, video, USB, LAN

5. I.O. Board
Designed and developed by Medalist
I.O. board software version 5.4

6. *Power Supply	
Type	ATX
Input	120/230 VAC (selectable)
Output	+3.3Vdc/28A
	+5Vdc/40A
	+12Vdc/12A
	-5Vdc/0.3A
	-12Vdc/0.8A
Max output power	400W

*Main board and power supply specifications are subject to change without notice

2-Spectrum Avanti *Elite* Parts Check List

Unpacking And Inspection

1. Remove Spectrum Avanti *Elite* lower cabinet, upper cabinet, step/dart skirt and LCD monitor/crown from the boxes and inspect for any damage.
2. Confirm that all parts are included.

Parts List

1. Spectrum Avanti *Elite* upper cabinet assembly
2. Spectrum Avanti *Elite* lower cabinet assembly
3. LCD monitor assembly
4. Step/dart skirt assembly
5. Hardware kit
   - A. Step skirt mounting bolts (4)
   - B. Monitor/crown assembly bolts (3)
   - C. Key set (2)
6. Accessory kit
   - A. Bar darts (6)
   - B. Bar dart tips (1 bag)
   - C. Throw line (1)

3-Cabinet Configuration

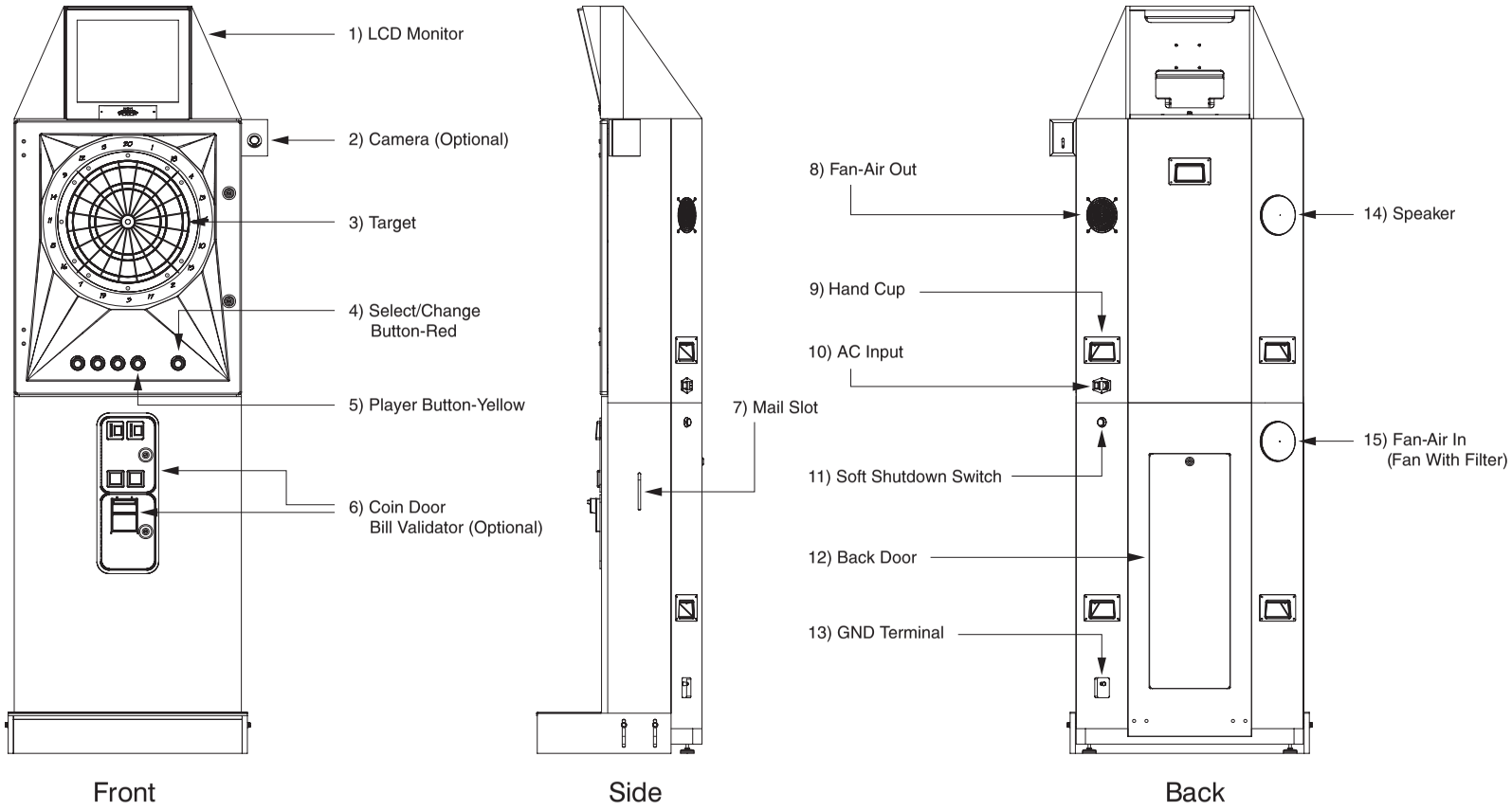


Figure 1.1: Cabinet configuration Elite (T)

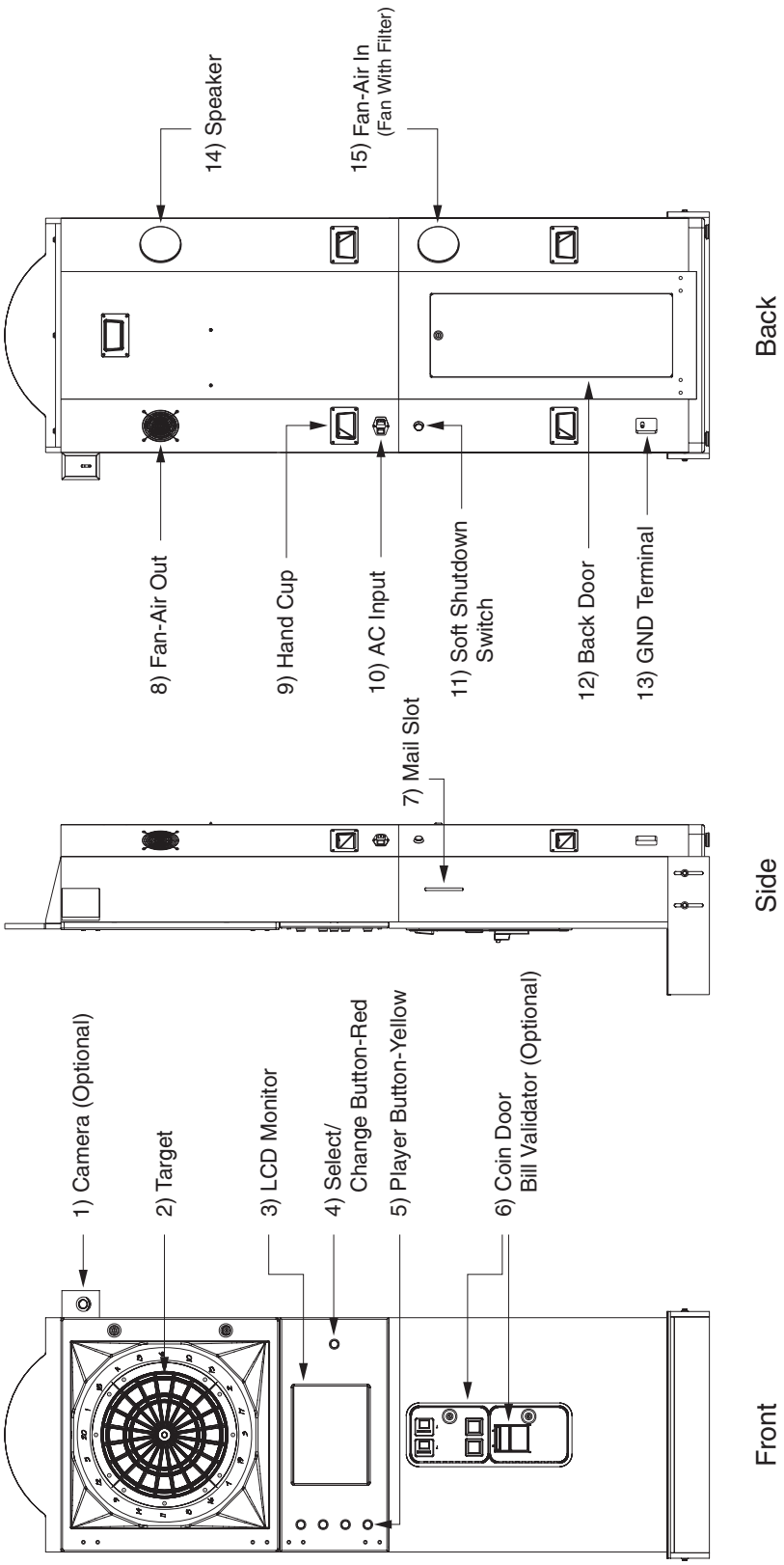


Figure 1.2: Cabinet configuration Elite (M)

Technical Information

Item	Name	Function
1	LCD Monitor	For display. Can adjust the display quality by using the LCD button under the LCD button cover
2	Camera	For Player and Top Ten List pictures
3	Target	Primarily to register dart scores, also used to input various information
4	Select/ Change Button-Red	Interfaces with software. Normally this button is used to scroll cursor and change players
5	Player Button-Yellow	Interfaces with software. Normally this button is used for selecting games and selecting the number of players to play the game
6	Coin Door	Where coins are inserted/DBA knockout plate
7	Mail Slot	To send mail to operators/dealers, such as records of tournaments or league
8	Fan-Air Out	To blow hot air from inside the cabinet out
9	Hand Cup	For transportation and assembly of the cabinet
10	AC Input	Insert for the AC power cord
11	Soft Shutdown Switch	Use for software shutdown (recommended)
12	Back Door	Additional access door
13	GND Terminal	Connects the cabinet ground to earth ground
14	Speaker	Sound
15	Fan-Air In	To bring filtered air from outside the cabinet in

4-Assembly And Installation Instructions

1. Install the leg levelers to the bottom of the lower cabinet.
2. Place the lower cabinet in the desired location and adjust each leg leveler until the lower cabinet is level from front to back and side to side.
3. Install the step/dart skirt assembly flush to the floor using the four bolts provided.

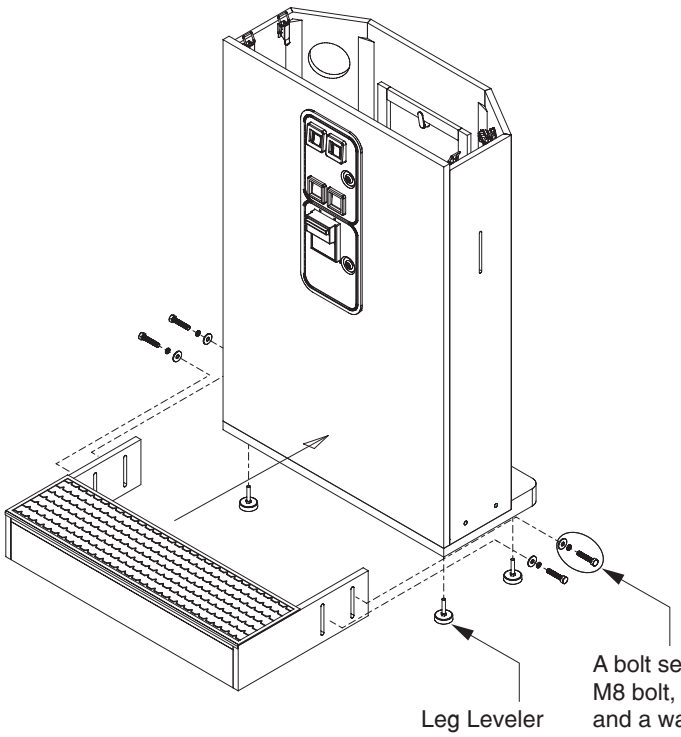


Figure 2.1: Installation of lower cabinet

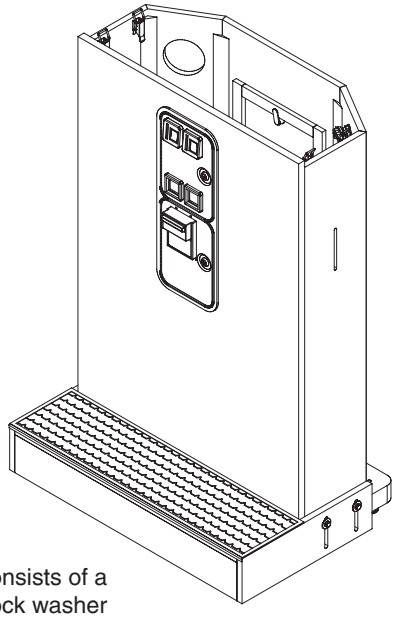


Figure 2.2: Lower cabinet complete unit

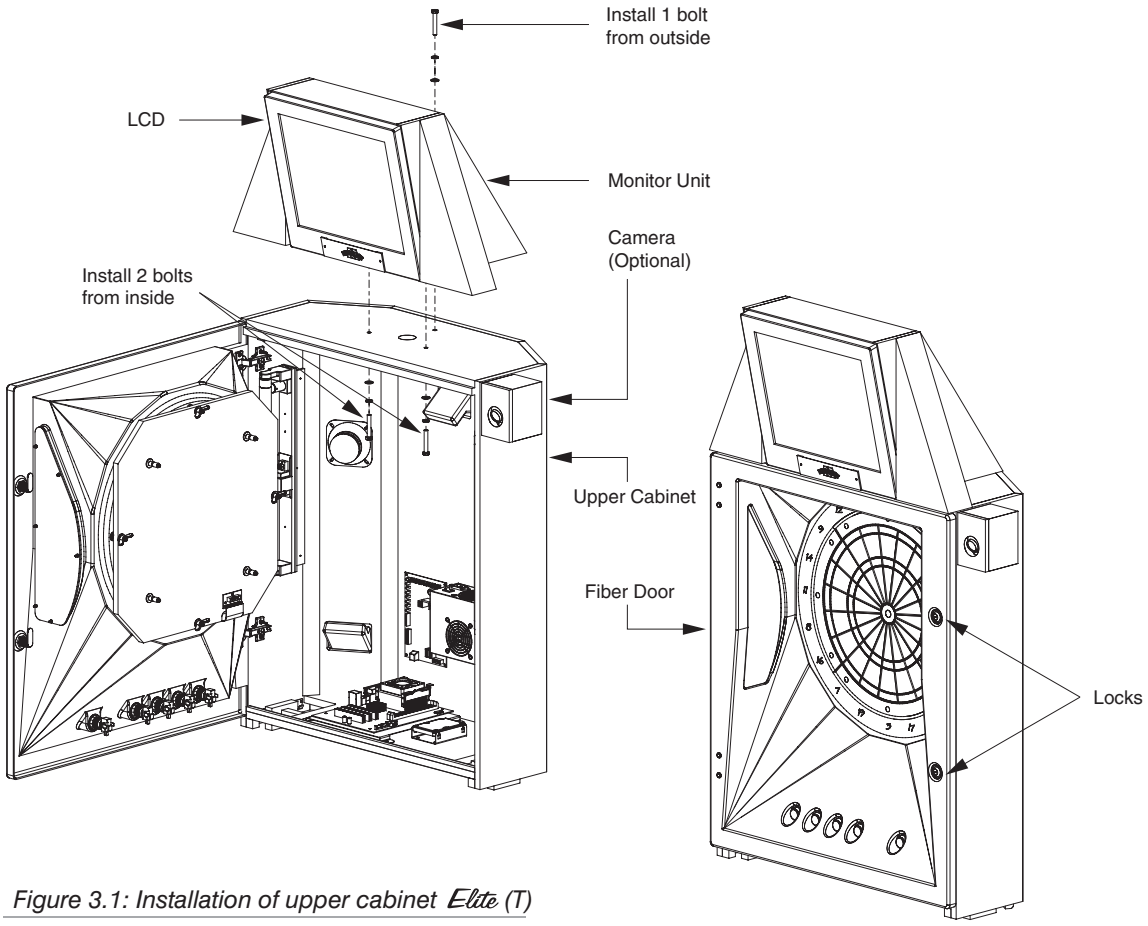


Figure 3.1: Installation of upper cabinet Elite (T)

Figure 3.2: Upper cabinet complete unit Elite (T)

4. Using two people, lift the upper cabinet and place it on top of the lower cabinet.
5. With someone stabilizing the upper cabinet, open the back door and lock the four hook latches to secure the upper cabinet to the lower cabinet.
6. Install the monitor/crown to upper cabinet using the three bolts provided.
7.* Route the VGA cable up through the hole in the top of the cabinet and connect it to the LCD.
8.* Route the LCD power connector down through the hole in the top of the cabinet and connect it to the 9 pin power connector inside the cabinet.

*For top mount board only

9. Connect the connectors from the lower wiring harness to the upper wiring harness.
10. Connect the power cord to power input module on the back of the cabinet.
11. Adjust leg levelers as needed then proceed to game setup.
12. Double check all of the connections before powering up the Spectrum Avanti *Elite*.
13. Lock the fiber door with key.

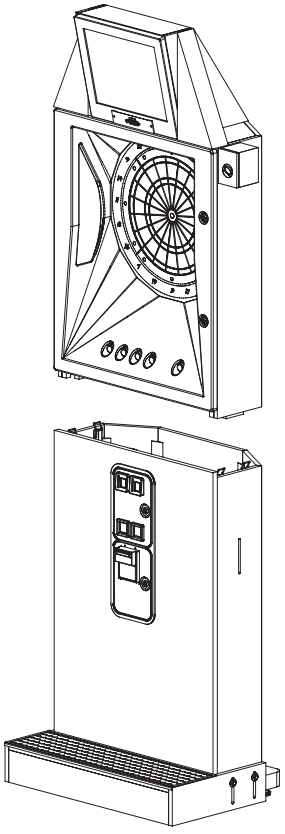


Figure 4.1: Install upper cabinet to lower cabinet Elite (T)

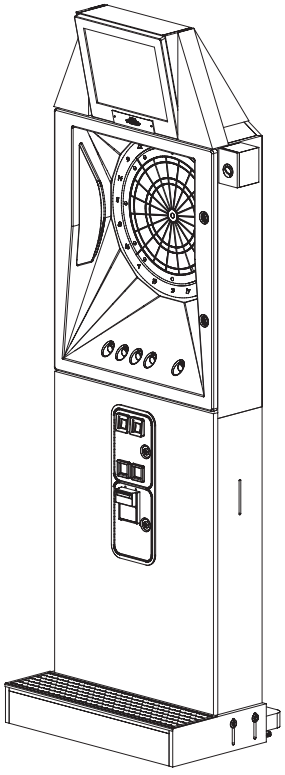


Figure 4.2: Complete unit installation Elite (T)

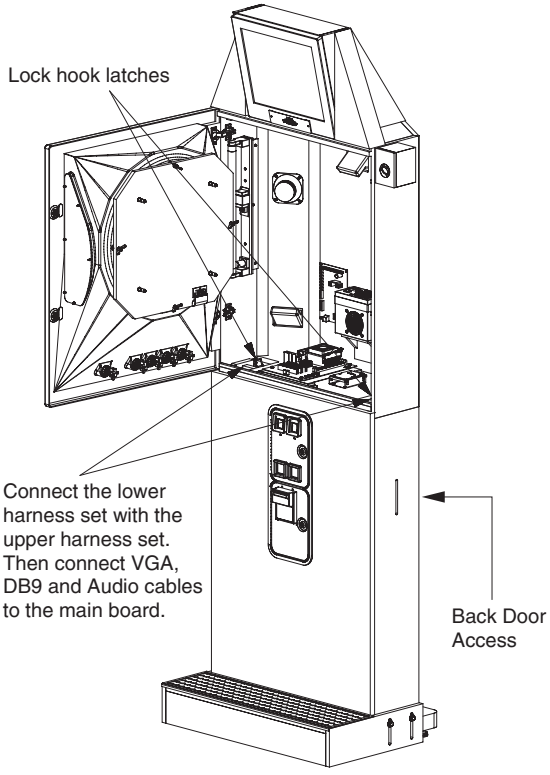

Lock hook latches
Connect the lower harness set with the upper harness set. Then connect VGA, DB9 and Audio cables to the main board.
Back Door Access

Figure 4.3: Open the back door to lock the hook latches Elite (T)

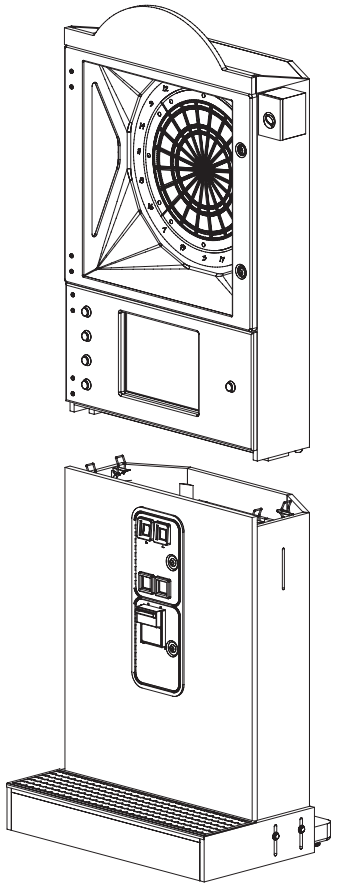


Figure 4.3: Install upper cabinet to lower cabinet Elite (M)

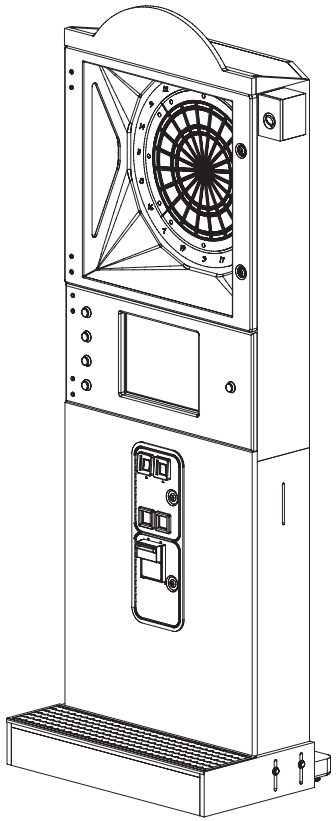


Figure 4.4: Complete unit installation Elite (M)

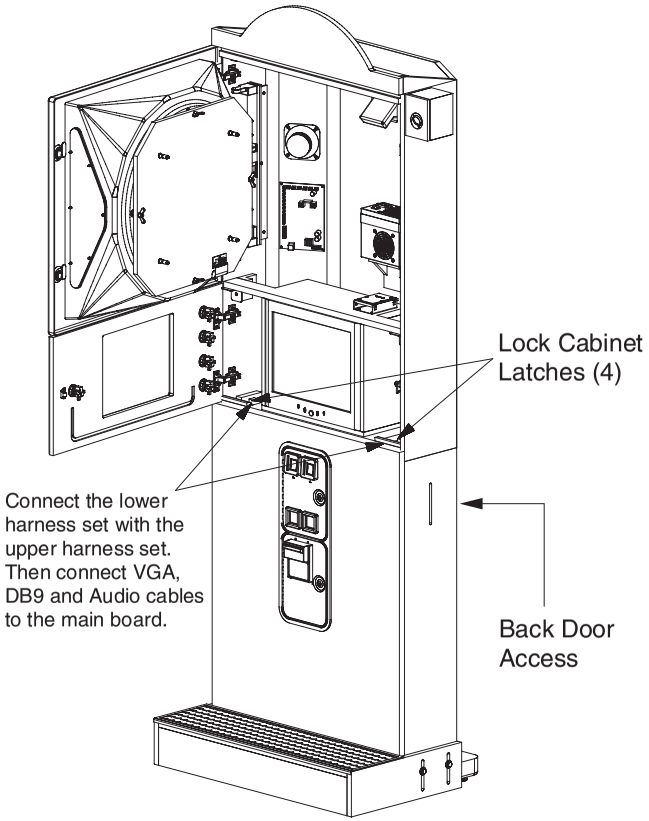

Lock Cabinet Latches (4)
Connect the lower harness set with the upper harness set. Then connect VGA, DB9 and Audio cables to the main board.
Back Door Access

Figure 4.5: Open the back door to lock the hook latches Elite (M)

5-Camera Installation And Setup

(Digital Camera Optional)

Installation

1. Thread the USB camera cable through the 1” hole in the upper right side of the game.
2. While holding the camera box to the upper right hand side of the game with the camera hole facing outwards, thread two 6mm bolts from the inside of the game into the camera box inserts.
3. Plug the USB camera cable into one of the two USB ports.

Setup

1. Press the Program Mode Access Button located on the I.O. board to enter game setup mode. Go to Diagnostics/Webcam test to set focus. Go to Game Settings/Player Pix to set pricing and the Photo Delete password.

   Note: *The Photo Delete password is set in Game Settings/ Player Pix by using the Yellow Player Buttons to set a numeric password that corresponds to the Yellow Player Buttons (i.e. 1111 equals pressing the player one button four times). The password must be four to eight numbers in length.*

2. Adjust focus by turning the black focus ring around the camera lens. Focus the camera to the distance of the throw line.
3. To access Photo Delete without entering the Operators' Setup Mode, go to Main Menu/Player Pix. Press and hold the Yellow Player Buttons two and three simultaneously. This will take you to the enter password screen. The password is entered by using the Yellow Player Buttons. Once the password is accepted, follow the screen prompts to delete photos.

6-Technical Information

6A. Exploded Drawing

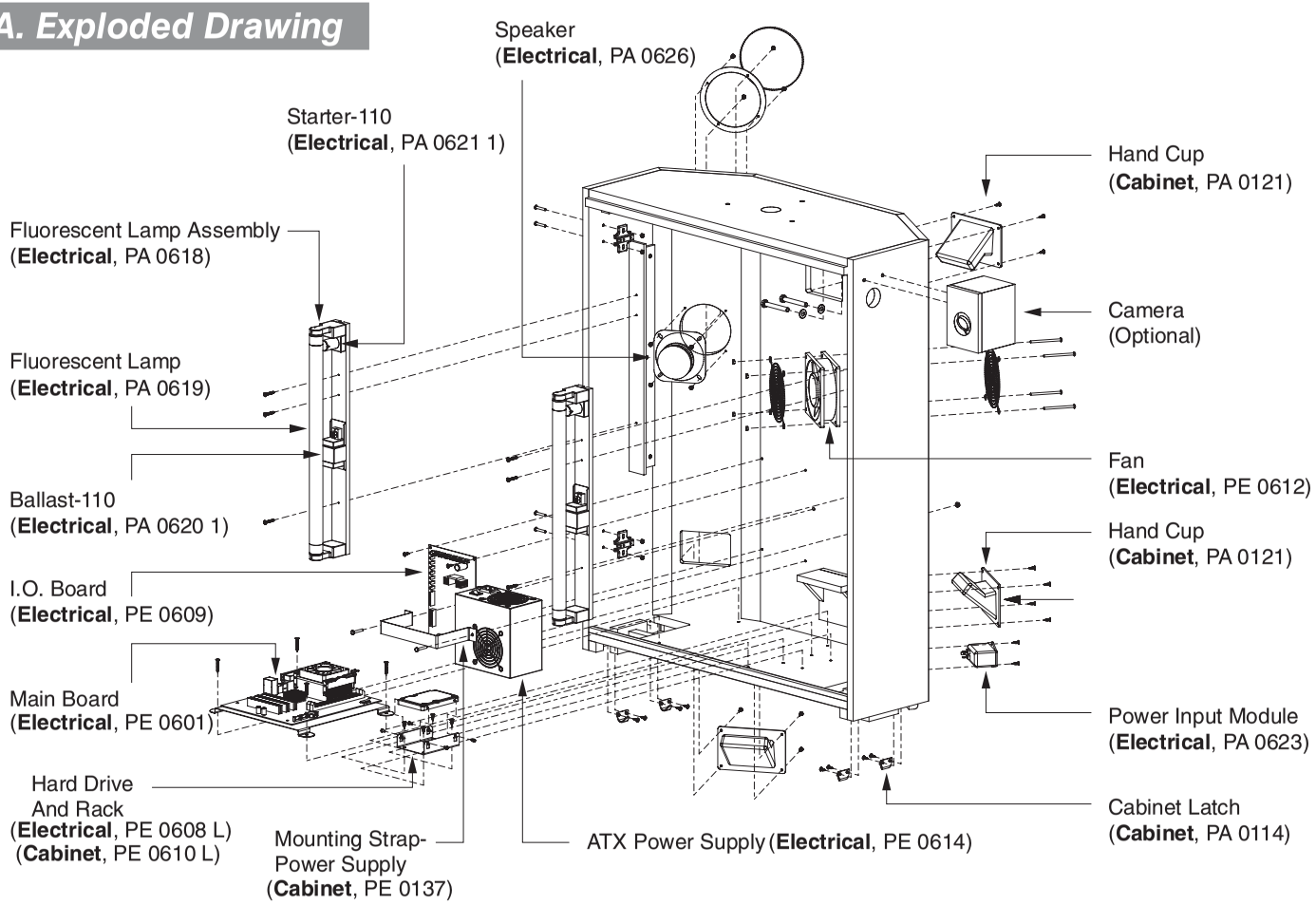


Figure 5.1: Exploded upper cabinet Elite (T)

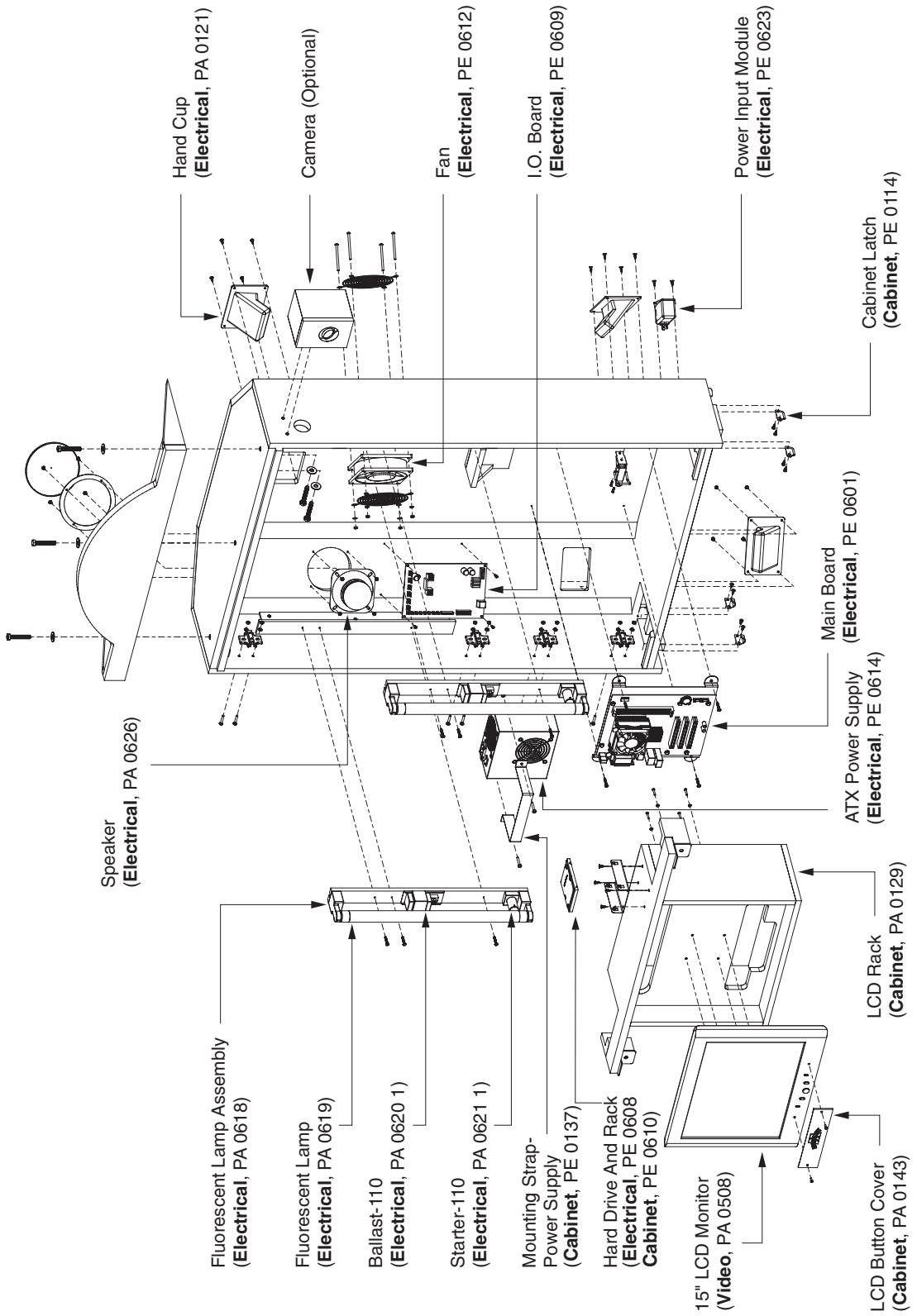

Hand Cup (**Electrical**, PA 0121)
Camera (Optional)
Fan (**Electrical**, PE 0612)
I.O. Board (**Electrical**, PE 0609)
Power Input Module (**Electrical**, PE 0623)
Cabinet Latch (**Cabinet**, PE 0114)
Main Board (**Electrical**, PE 0601)
ATX Power Supply (**Electrical**, PE 0614)
LCD Rack (**Cabinet**, PA 0129)
LCD Button Cover (**Cabinet**, PA 0143)
15" LCD Monitor (**Video**, PA 0508)
Hard Drive And Rack (**Electrical**, PE 0608 **Cabinet**, PE 0610)
Mounting Strap-Power Supply (**Cabinet**, PE 0137)
Starter-110 (**Electrical**, PA 0621 1)
Ballast-110 (**Electrical**, PA 0620 1)
Fluorescent Lamp (**Electrical**, PA 0619)
Fluorescent Lamp Assembly (**Electrical**, PA 0618)
Speaker (**Electrical**, PA 0626)

Figure 5.2: Exploded upper cabinet Elite (M)

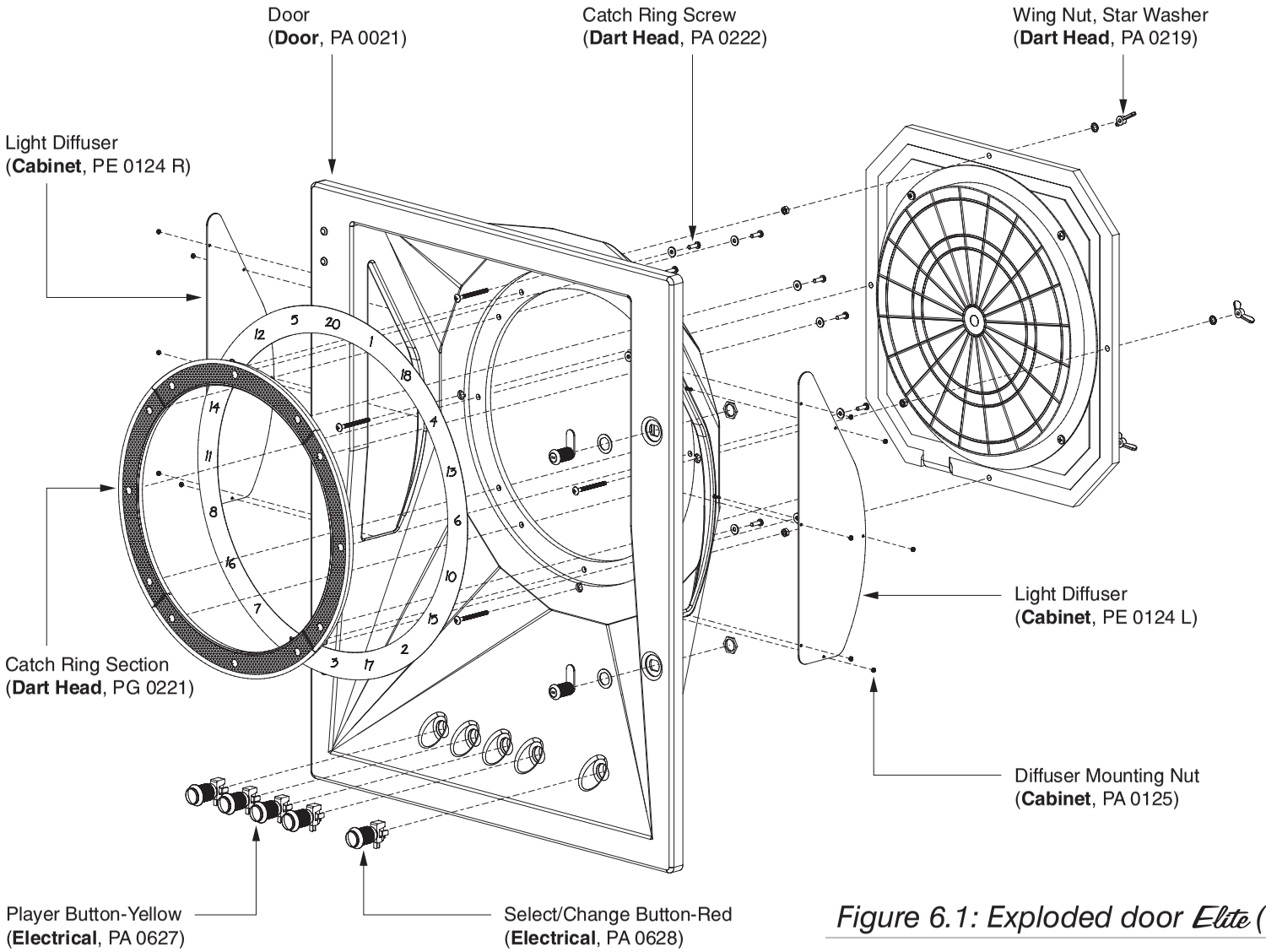


Figure 6.1: Exploded door Elite (T)

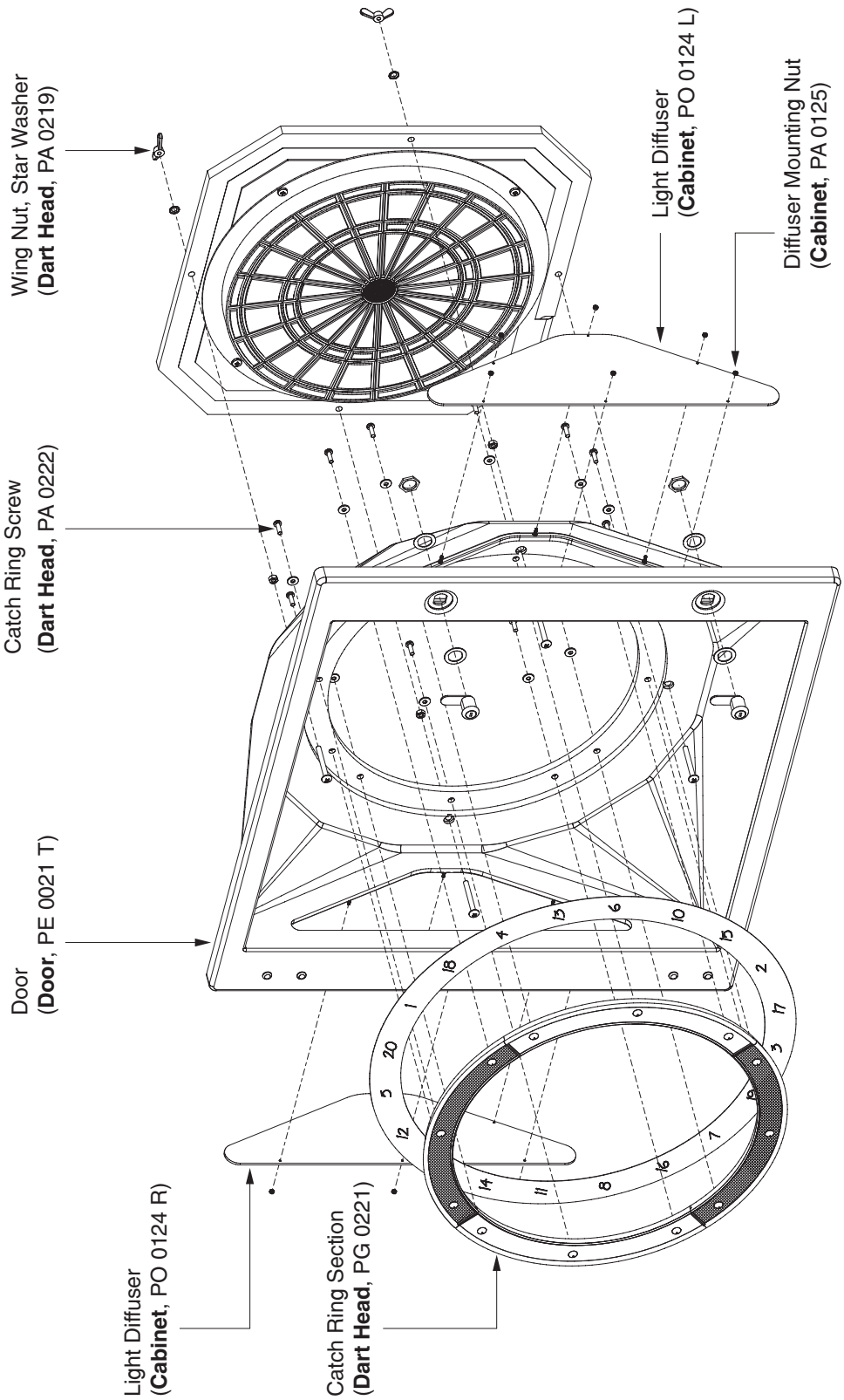


Figure 6.2: Exploded door Elite (M)

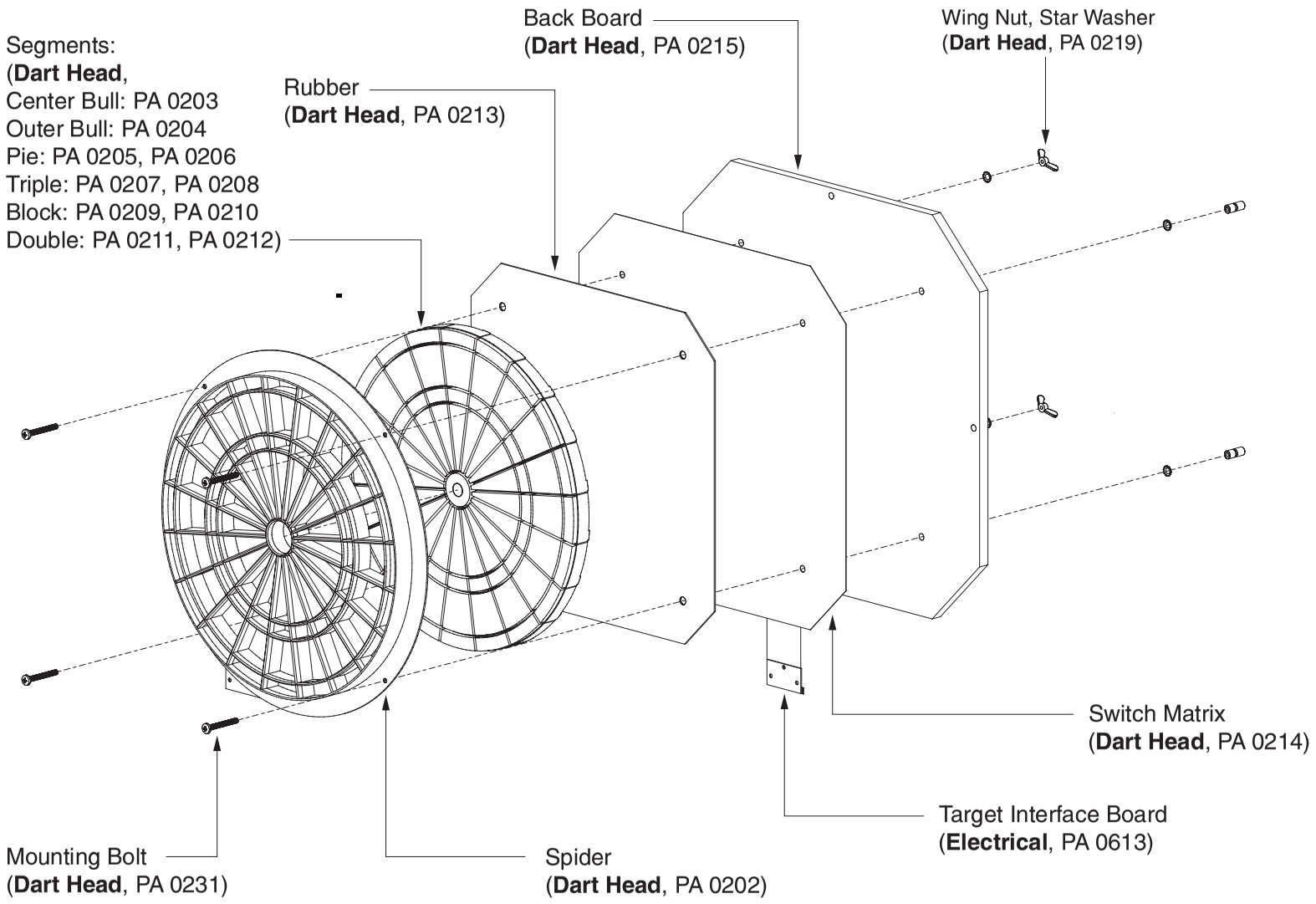


Figure 7: Exploded dart head

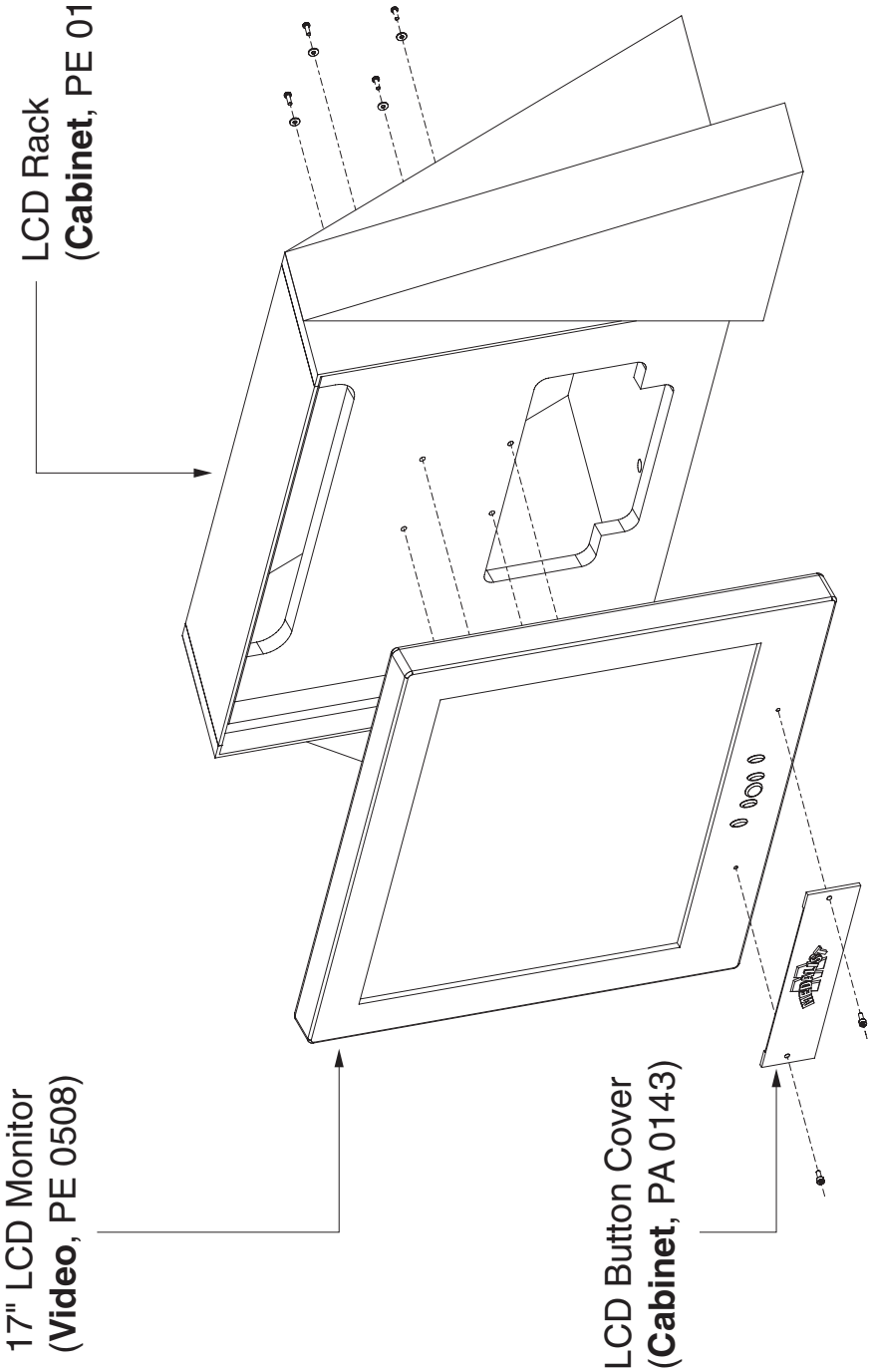


Figure 8: Exploded monitor unit Elite (T)

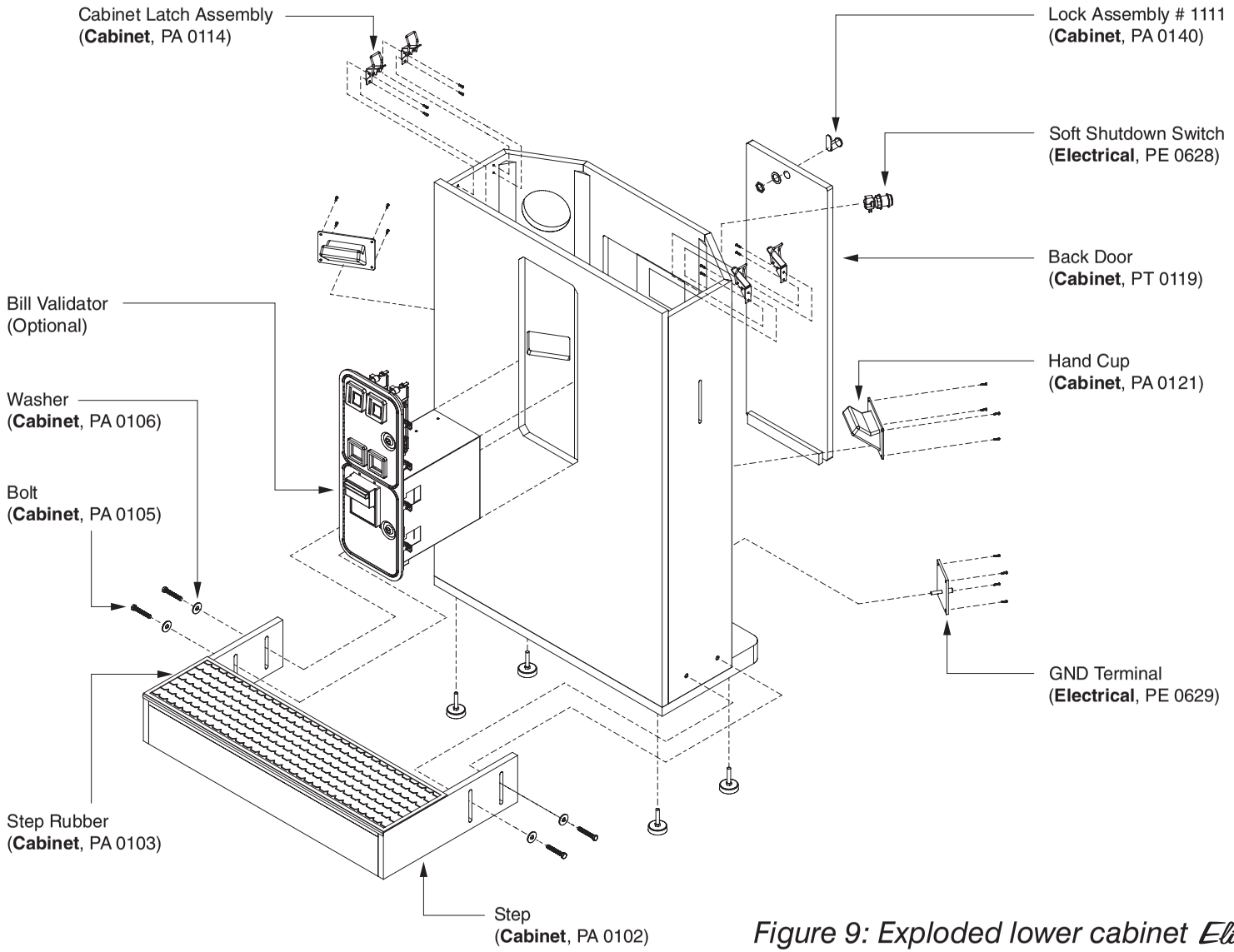


Figure 9: Exploded lower cabinet Elite (T)

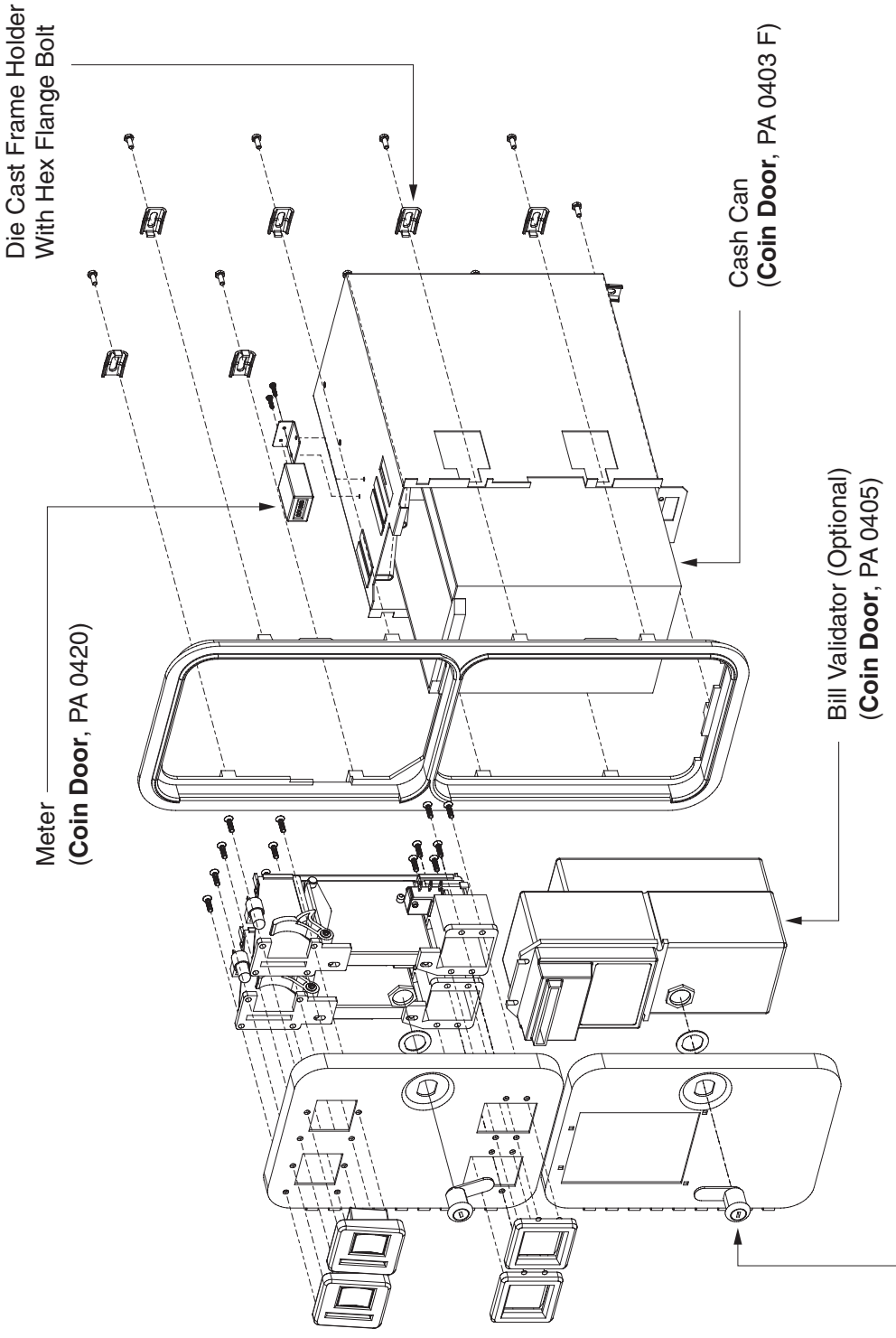


Figure 10: Exploded coin door

6B. I.O. Board Layout

Port	Description	Input	Output
CN1	Load Program ISP	4	-
CN2	RS232 Communication	1	1
CN3	DC Power	-	-
CN4	Audio Signal Input	1	-
CN5	Audio Signal Output To Speaker	-	1
CN6	Target Input	16	4
CN7	Button/Lights	5	5
CN8	Input Signal Of Coin Count-Up	2	-
CN9	Player Change Sensor	1	-
CN10	Missed Dart Sensor	1	-
CN11	Bill Validator Input	1	-
CN12	Soft Power Down	1	-
CN13	Coin Box Sensor	1	-
CN14	Spare Input 1	1	-
CN15	Spare Input 2	1	-
CN16	Spare Input 3	1	-
CN17	Spare Input 4	1	-
CN18	Coin Counter 1	-	1
CN19	Coin Counter 2	-	1
CN20	Meter Counter	-	1
CN21	Flashing Lights	-	1
CN22	Solid State Switch 1	-	1
CN23	Solid State Switch 2	-	1
CN24	Spare Output 1	-	1
CN25	Spare Output 2	-	1
CN26	Spare Output 3	-	1
CN27	Spare Output 4	-	1
CN28	Spare Output 5	-	1

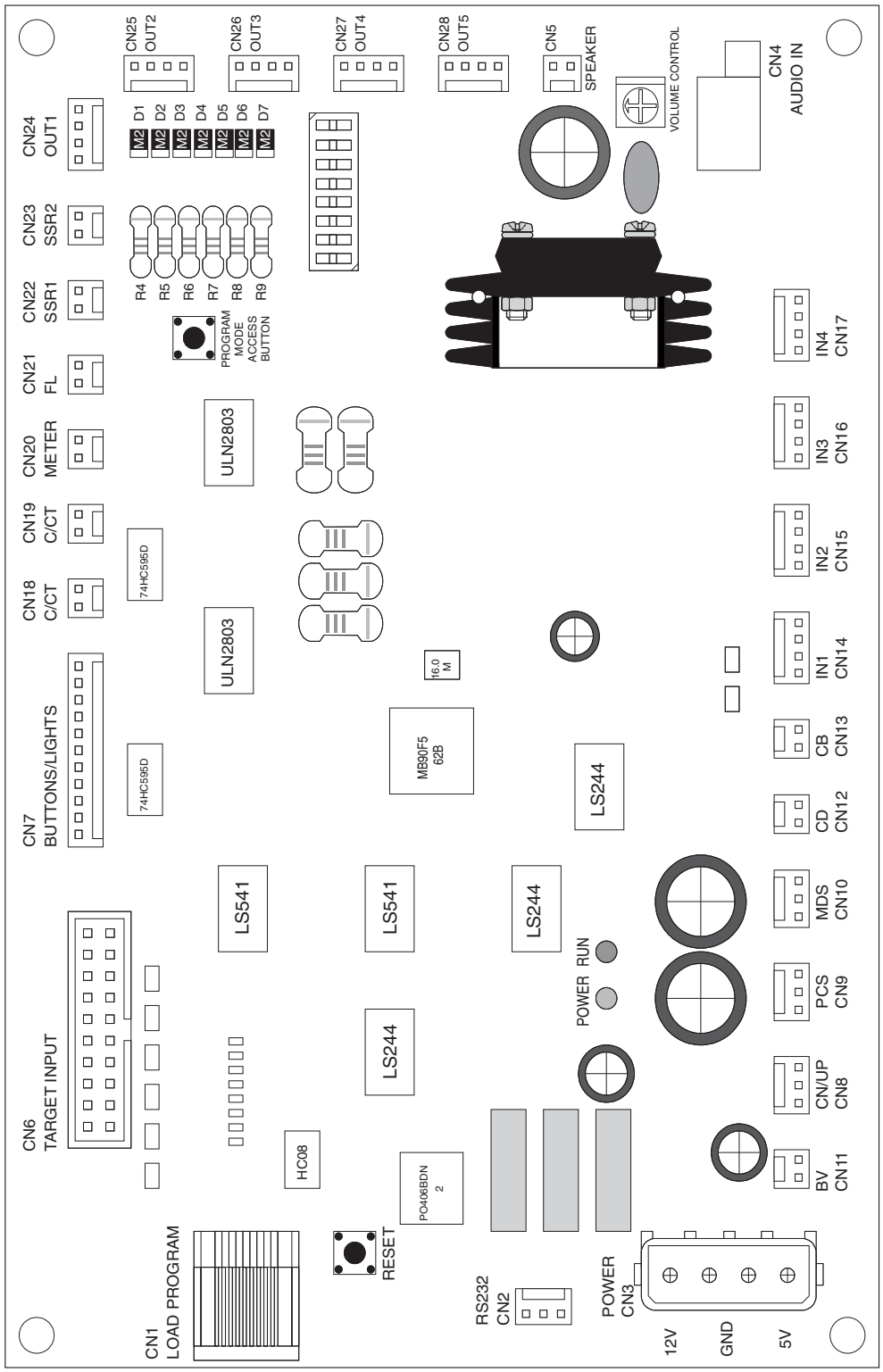


Figure 11: I.O. board layout

6C. Main Board Connections

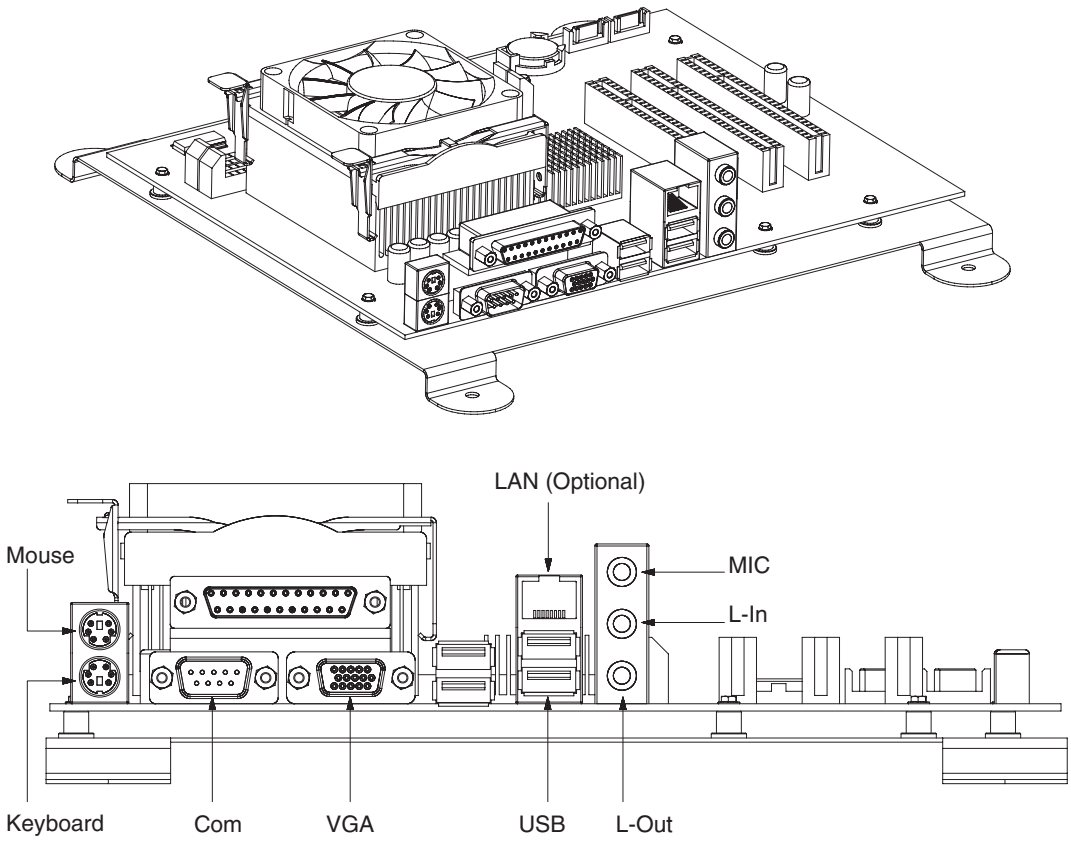
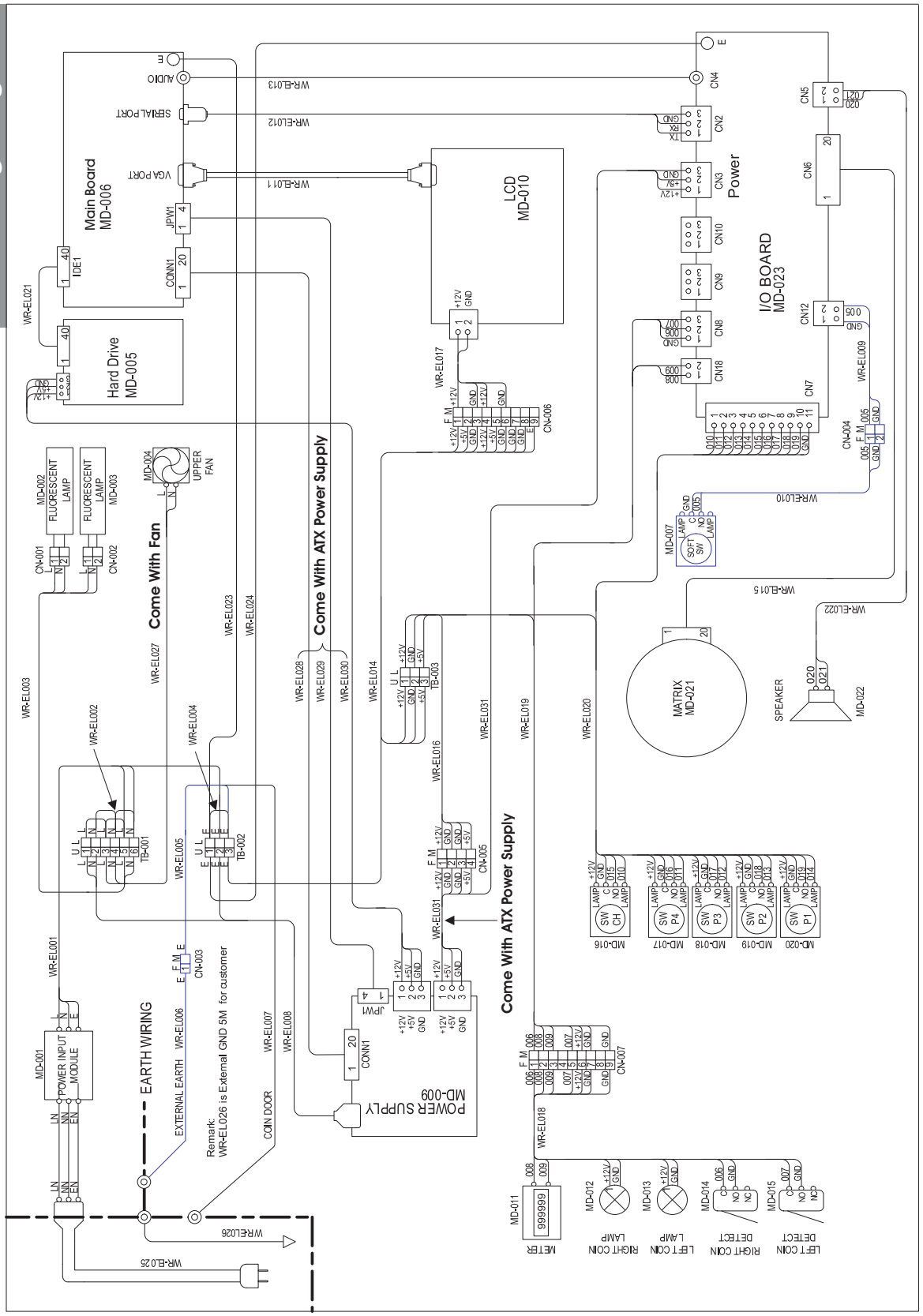


Figure 12: Main board connections

Name	Function	Connect to
AC Power Input	Supply AC Power To PC Unit	AC Power
Com Port	Serial Communication With I.O. Board	DB9 Cable
VGA Port	Send Video Signal To Monitor	VGA Cable
USB Port	Multi-Function - Software Update - Camera	Thumb Drive, Camera Cable
Audio Signal Out	Send Audio Signal To I.O. Board	Audio Cable

6D. Wiring Diagram



7-Troubleshooting

No Power

1. Check for correct voltage at wall receptacle using digital voltmeter.
2. Check fuse with digital voltmeter or continuity tester.
3. Remove power cord and check wiring from AC power cord to power supply.
4. Reapply power cord and check for correct voltage at power supply AC input plug.
5. Check on/off switch with digital voltmeter or continuity tester.
6. Check AC power cord.

No Display On LCD

1. Check power to LCD.
2. Check the VGA cable.
3. If the main board appears to be booting up and there is still no display, the LCD may need to be replaced.

No Sound

1. Check the volume control on the I.O. board.
2. Check for proper connections at the main board, I.O. board and speaker.
3. If the connections are good and there is still no sound, the speaker may need to be replaced.

No Lamps

1. If one side is working, swap lamps and starters to determine if either is defective.
2. If neither side is working, check for correct voltage at the lamp connector located just below the lamp holder.
3. If the voltage is correct, install a new lamp and/or starter.

No Lamps (Continued)

4. If voltage is not present, trace the wiring back to the terminal strips located behind the power supply using a digital voltmeter.
5. If voltage is present but lamps do not work, install a new lamp holder.

No Coin-up

1. Check wiring from the coin switches to the I.O. board connector CN 8.
2. Manually short ground pin to the center pin of connector CN 8 on the I.O. board using a small metal screwdriver and check for coin-up.
3. If the dart board can be manually coined-up at the I.O. board, the problem is the wiring or the coin switches.
4. If the dart board cannot be coined-up at the I.O. board, the I.O. board may need to be replaced.

Stuck Segment

1. Unplug the ribbon cable from the target interface board. If the stuck segment error message goes away, the problem is in the dart head assembly.
   - If the problem is in the dart head assembly, first remove and clean the rubber and matrix and remove all tips from behind the rubber as well as in and around the target segments
   - The rubber may need to be replaced if it is severely indented
   - The matrix may need to be replaced if the problem still exists
2. Unplugging the ribbon cable from the target interface board does not eliminate the stuck segment error message, re-install ribbon cable into the target interface board and remove the other end from the I.O. board located inside the upper cabinet.
   - If the problem goes away, the ribbon cable may need to be replaced
   - If the problem does not go away, the target interface board may need to be replaced

8-Software Setting

To access the Spectrum Avanti *Elite* software on the I.O. board, find and press the S2 PM black button on the I.O. board. This will take you to the Program Mode. Changes to Games, Display, Date & Time, the File and the Board itself can be made from here. You may also run Diagnostics and check Reports. Use the Red Player Change Button to scroll to a desired category and then any Yellow Player Button to select that category.

Selecting Game Settings

1. 01 Games
2. Cricket Games
3. Practice Games
   - Selecting any of these first four options will allow you to choose if the game is displayed or not, the Happy Hour and Regular Price Credits, Round Limit, Single or Double Bull, Robo Rival (depending on game), Extended Play Credits and Extended Play Rounds
4. Goodtime Games
5. Game Options
   - Selecting this brings up a submenu with 01 Games, Cricket Games, Goodtime Games, League Settings, Match Play Settings, and General Settings
   - The first three: 01 Games, Cricket Games and Goodtime Games, will show the options for those games. Selecting the option will allow you to take it off the menu or charge for using the option in a game
   - General Settings will allow you to change the number of times Correct-A-Dart can be used. General Settings allows you to turn on/off Handicapping, Non Cut-Throat Games, Medalist Rating, Out Chart Displayed and Freeze Warning
     You can also set the pricing for Doubles and Trios in League and select the stat format (PPD/PPR)
   - League Settings will allow you to set the pricing for Doubles, Trios and Playoffs. You may also disable auto handicap

Selecting Game Settings (Continued)

6. Player Pix Options
   - Set Happy Hour and Regular Pricing. Password allows you to give a password to the location in case they would like to delete pix that have been placed on the board thus saving a service call (to use set password enter Player Pix screen and press Yellow Player Buttons 2 and 3 simultaneously
     Enter password using player buttons and follow instructions to delete). Set the amount of time before the picture is snapped and set the number of times a password may be tried and also time between password retry

Selecting Display Settings

1. Language
   - Changes instructions to the selected language
2. Top Ten List
   - Brings up submenu with Count-Up, Cricket Count-Up, Eagles Eye, Half-It, Super Count-Up and Super Cricket Count-Up
   - Selecting any of these will allow you to view and edit list, clear current list and set the amount of time before the list clears automatically or if the list is displayed at all

Selecting Date & Time Settings

1. Date & Time
   - Changes date and time displayed by the board
2. Pricing
   - Displays the days of the week. By selecting a day you can change the pricing for any hour during that day from Normal Play to Happy Hour or Free Play
3. Auto Soft Shutdown
   - This allows you to set a time when the board will shut down

Selecting Report

1. Event Log
   - Displays all events that happened on the board (i.e. stuck segments or buttons)
2. Counters
   - Shows coin and bill amounts that have gone into the board

Selecting Reports (Continued)

3. Delete Credits
   - Clears any credits currently on the board
4. Delete Photos
   - Brings up a screen to show you how to delete any photos currently on the dart board

Selecting Diagnostics

1. Matrix
   - A target will appear on screen. To check your Matrix touch segments on the dart board and see if they correspond to the screen
2. Button & Lights
   - A button panel will appear on screen. Press buttons to test
3. Coin/Bill Latch Test
   - Insert coins or bills and screen will show amount inserted
4. Audio Test
   - A small audio clip will run
5. Video test
   - Test using several standard formats
6. Webcam Test (Digital Camera)
   - Displays camera view, adjust if necessary

Selecting Board Setting

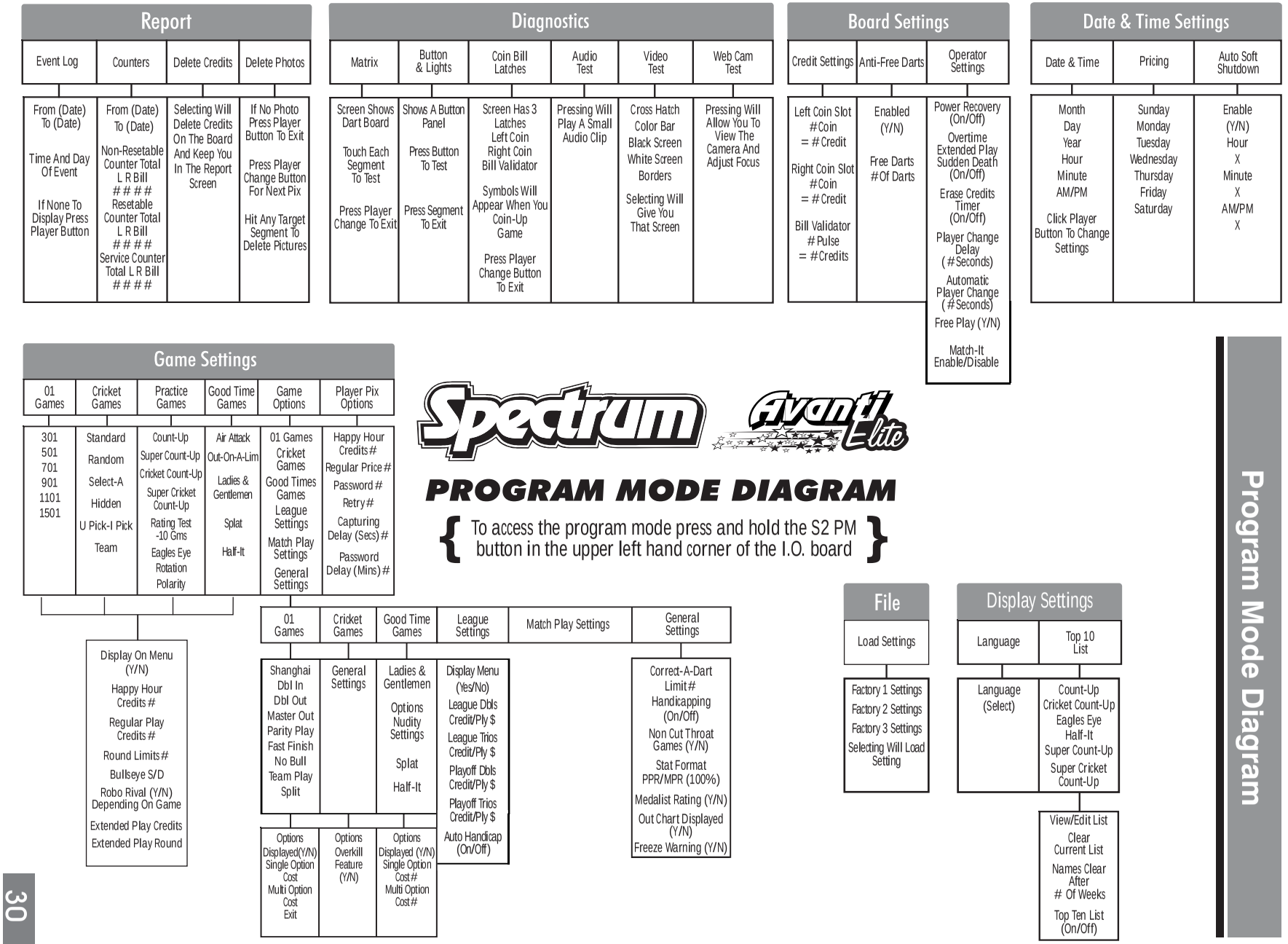
1. Credit Settings
   - Choose credits for pulses to be selected
2. Anti-Free Darts
   - Turn on or off and select amount of darts thrown before warning will sound
3. Operator Settings
   - Turn on or off: Power Recovery, Extended Play, Erase Credits Timer and Free Play features
   - Change the amount of time from when a player hits the Red Player Change Button to the next player's turn
   - Enable or disable Automatic Player Change and change the amount of time between player's turn
   - Enable or disable Match-It

Selecting File Load Setting

Selecting file load setting allows you to load either Factory Settings 1, 2 or 3.

Game	Factory Setting 1	Factory Setting 2	Factory Setting 3
01			
301	1	1	1
501	2	2	4
701	3	3	4
901	4	4	4
1101	5	5	4
1501	6	6	4
Cricket	3	2	4
Standard	3	2	4
Random	3	2	4
Select-A	3	2	4
Hidden	3	2	4
U Pick-I Pick	3	2	4
Team			
Practice	1	1	2
Count-Up	1	1	2
Cricket Count-Up	1	1	2
Eagles Eye	1	1	2
Rotation	1	1	2
Polarity	2	1	3
Super Count-Up	2	1	3
Super Count-Up Crkt			
Goodtime	2	1	2
Air Attack	2	1	2
Out-On-A-Lim	2	1	2
Ladies & Gentlemen	2	2	2
Splat	2	1	2
Half-It			

Figure 13: Factory settings


Report
Event Log
From (Date)
To (Date)
Time And Day Of Event
If None To Display Press Player Button
Counters
From (Date)
To (Date)
Non-Resetable Counter Total L R Bill ####
Resetable Counter Total L R Bill ####
Service Counter Total L R Bill ####
Delete Credits
Selecting Will Delete Credits On The Board And Keep You In The Report Screen
Delete Photos
If No Photo Press Player Button To Exit
Press Player Change Button For Next Pix
Hit Any Target Segment To Delete Pictures
Diagnostics
Matrix
Screen Shows Dart Board
Touch Each Segment To Test
Press Player Change To Exit
Button & Lights
Shows A Button Panel
Press Button To Test
Press Segment To Exit
Coin Bill Latches
Screen Has 3 Latches Left Coin Right Coin Bill Validator
Symbols Will Appear When You Coin-Up Game
Press Player Change Button To Exit
Audio Test
Pressing Will Play A Small Audio Clip
Video Test
Cross Hatch
Color Bar
Black Screen
White Screen
Borders
Selecting Will Give You That Screen
Web Cam Test
Pressing Will Allow You To View The Camera And Adjust Focus
Board Settings
Credit Settings
Left Coin Slot #Coin = #Credit
Right Coin Slot #Coin = #Credit
Bill Validator #Pulse = #Credits
Anti-Free Darts
Enabled (Y/N)
Free Darts #Of Darts
Operator Settings
Power Recovery (On/Off)
Overtime Extended Play Sudden Death (On/Off)
Erase Credits Timer (On/Off)
Player Change Delay (#Seconds)
Automatic Player Change (#Seconds)
Free Play (Y/N)
Match-It Enable/Disable
Date & Time Settings
Date & Time
Month
Day
Year
Hour
Minute
AM/PM
Click Player Button To Change Settings
Pricing
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Auto Soft Shutdown
Enable (Y/N)
Hour
X
Minute
X
AM/PM
X
Game Settings
01 Games
301
501
701
901
1101
1501
Cricket Games
Standard
Random
Select-A
Hidden
U Pick-I Pick
Team
Practice Games
Count-Up
Super Count-Up
Cricket Count-Up
Super Cricket Count-Up
Rating Test -10 Gms
Eagles Eye
Rotation
Polarity
Good Time Games
Air Attack
Out-On-A-Lim
Ladies & Gentlemen
Splat
Half-It
Game Options
01 Games
Cricket Games
Good Times Games
League Settings
Match Play Settings
General Settings
Player Pix Options
Happy Hour Credits#
Regular Price#
Password#
Retry#
Capturing Delay (Secs)#
Password Delay (Mins)#
Spectrum
Avanti Elite
PROGRAM MODE DIAGRAM
{ To access the program mode press and hold the S2 PM button in the upper left hand corner of the I.O. board }
Display On Menu (Y/N)
Happy Hour Credits #
Regular Play Credits #
Round Limits #
Bullseye S/D
Robo Rival (Y/N) Depending On Game
Extended Play Credits
Extended Play Round
01 Games
Shanghai
Dbl In
Dbl Out
Master Out
Parity Play
Fast Finish
No Bull
Team Play
Split
Options Displayed(Y/N)
Single Option Cost
Multi Option Cost
Exit
Cricket Games
General Settings
Options Overkill Feature (Y/N)
Good Time Games
Ladies & Gentlemen
Options
Nudity Settings
Splat
Half-It
Options Displayed (Y/N)
Single Option Cost#
Multi Option Cost#
League Settings
Display Menu (Yes/No)
League Dbls Credit/Ply $
League Trios Credit/Ply $
Playoff Dbls Credit/Ply $
Playoff Trios Credit/Ply $
Auto Handicap (On/Off)
Match Play Settings
General Settings
Correct-A-Dart Limit#
Handicapping (On/Off)
Non Cut Throat Games (Y/N)
Stat Format PPR/MPR (100%)
Medalist Rating (Y/N)
Out Chart Displayed (Y/N)
Freeze Warning (Y/N)
File
Load Settings
Factory 1 Settings
Factory 2 Settings
Factory 3 Settings
Selecting Will Load Setting
Display Settings
Language
Language (Select)
Top 10 List
Count-Up
Cricket Count-Up
Eagles Eye
Half-It
Super Count-Up
Super Cricket Count-Up
View/Edit List
Clear Current List
Names Clear After # Of Weeks
Top Ten List (On/Off)
Program Mode Diagram

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